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Indian Standard

GLOSSARY OF TERMS FOR SHIPS' WINDOWS

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 5

September 1987

Indian Standard

GLOSSARY OF TERMS FOR SHIPS' WINDOWS

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GLOSSARY OF TERMS FOR SHIPS' WINDOWS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 20 October 1986, after the draft finalized by the Shipbuilding Sectional Committee had been approved by the Marine, Cargo Movement and Packaging Division Council.

0.2 At present, the terminology for Ships' Side Scuttles and Ships' Rectangular Windows is covered in the following Indian Standards:

i) IS : 5474(Part II)-1972 Ships' side scuttles: Part II Terminology and types

ii) IS : 8886 (Part I)-1978 Ship ordinary rectangular windows: Part I Types and dimensions

0.3 A need has been felt to prepare a unified standard covering vocabulary for Ships' side scuttles and windows. Earlier, the term " Ships' Windows " was used in connection with Ships' rectangular windows only. Ships' round windows (Ships' side scuttles) were not allotted to this term. Until now, a common main term was missing. With this standard, it is endeavoured amongst others, to introduce a common main term for all kinds of windows used in shipbuilding. In the sense of this Standard the term " Ships' Window " is applied as a collective term for windows of round shape (Ships' side scuttles) and for windows of angular shape (also including sliding window, fan light window, wheelhouse window, etc).

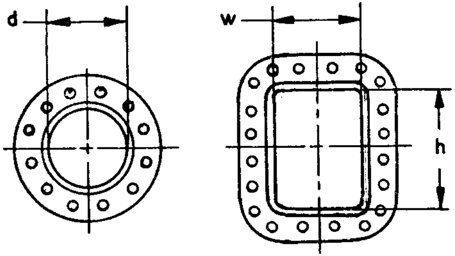
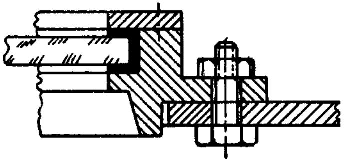
0.4 In the preparation of this vocabulary, care has been taken to standardize only suitable terms and definitions and not to perpetuate unsuitable terms because of their use in the past. The illustrations given against the respective terms are simplified or symbolic representations given in order to facilitate the comprehension. They serve only as means and example and do not confine the construction.

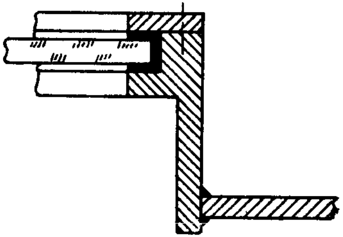
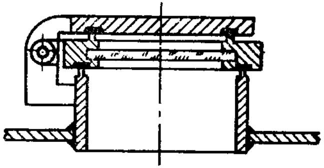
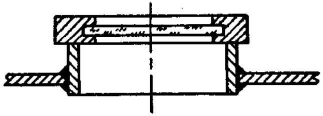
0.5 Where more than one term was usual for the relevant definition, only a single term has been chosen, in general the most common one, for the sake of unambiguity.

1. SCOPE

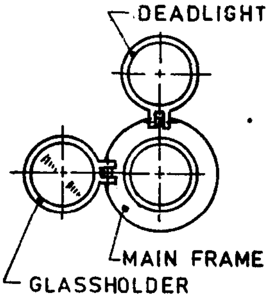
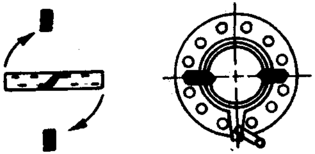
1.1 This standard establishes the vocabulary for the various terms in use relative to any window, regardless of shape, suitable for installation aboard ships.

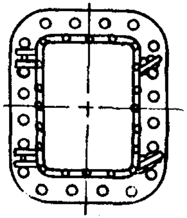
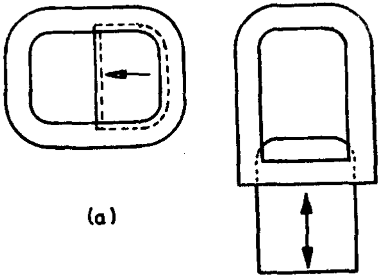
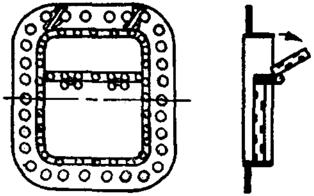
2. GENERAL TERMS FOR SHIPS' WINDOWS

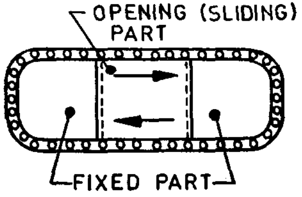
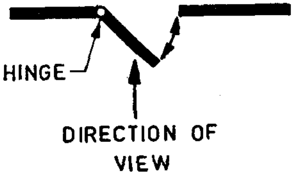
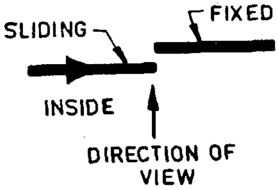
Cl No.	*Term*	*Definition*	*Figure*
2.1	Ships' window	Any window, regardless of shape, suitable for installation aboard ships and marine structures	
2.2	IS ships' window	A ships' window complying with all the relevant Indian Standards on ships' window in existence at the time of its manufacture	
2.3	Ships' window nominal size	The nominal dimension(s) of the clear light size of a ships' window	 Nominal Dimensions
2.4	Bolted window	A window with a main frame to be installed by bolts	

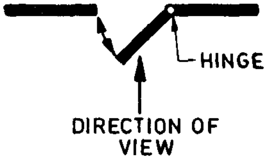
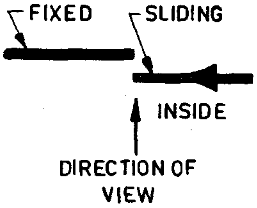
Cl No.	*Term*	*Definition*	*Figure*
2.5	Welded window	A window with a main frame to be installed by welding	
2.6	Opening window	A window with a hinged or pivoted glassholder or with a sliding part	
2.7	Common hinged window	An opening window with both the glassholder and the deadlight or the stormshutter on the same hinge	
2.8	Non-opening window	A fixed window without hinged or sliding part of which the main frame and the glassholder form one common component	

3. TERMS FOR THE TYPES OF SHIPS' ROUND AND RECTANGULAR WINDOWS

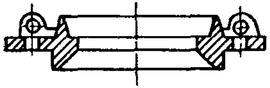
Cl No.	*Term*	*Definition*	*Figure*
3.1	Ships' round window (side scuttle)	Ships' Any window of circular shape, opening hinged or non-opening with or without deadlight, including side scuttles, port holes, etc	
3.2	Ships' pivoted round windows	A ships' round window the glassholder of which rests on two opposite pintles and thus is rotated on its axis when being opened or shut	
3.3	Ships' rectangular window	Ships' any window of rectangular or quadratic shape having straight or arched edges and rounded corners	
3.4	Ships' shaped window	Ships' any window not round, rectangular or square	

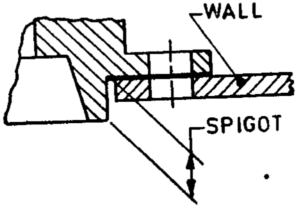
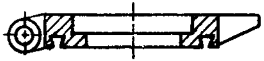
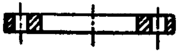
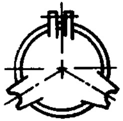
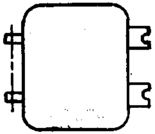
Cl No.	*Term*	*Definition*	*Figure*
3.5	Ordinary rectangular window	IS standardized type of an opening hinged or non-opening ships' rectangular window	
3.6	Ships' sliding window	A ships' opening rectangular window without hinges at which the opening part is shifted either horizontally(a) or vertically (b)	 (a) (b)
3.7	Ships' fanlight window	A ships' rectangular window horizontally divided (glass pane), of which the smaller upper part is hinged to open inwards and the lower part is non-opening	

Cl No.	*Term*	*Definition*	*Figure*
3.8	Wheelhouse window	A ships' rectangular window which is suited for installation in the wheelhouse	
3.9	Ships' wide vision window	A ships' large wide rectangular window sub-divided to accommodate and retain smaller glass panes as fixed or opening (horizontally sliding) parts	
3.10	Left-hand window	a) Hinged window: An opening window with hinge(s) of the glass-holder on the left side when viewed from the side towards which it opens and closing anticlockwise	
		b) Horizontally sliding window: Sliding part on the left side, viewed from inside	

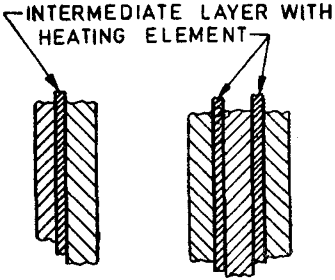
Cl No.	*Term*	*Definition*	*Figure*
3.11	Right-hand window	a) Hinged window: An opening window with hinge(s) of the glassholder on the right side when viewed from the side towards which it opens and closing clockwise	
		b) Horizontally sliding window: Sliding part on the right side, viewed from inside	

4. TERMS FOR METALLIC MAIN COMPONENTS

Cl No.	*Term*	*Definition*	*Figure*
4.1	Main frame	Basic frame of a ships' window which is fixed at the structure by means of bolts or welding Note — For ships' non-opening windows the main frame serves at the same time for taking up the glass pane	

Cl No.	*Term*	*Definition*	*Figure*
4.2	Spigot	A projection running round the main frame for centring of the window when mounted into the structure	
4.3	Glassholder	Metallic component for taking up the glass pane for all kinds of ships' opening windows	
4.4	Glass retaining frame	A light frame (round or rectangular) used for fixing the glass pane in the glassholder of ships' opening windows or in the main frame of ships' non-opening windows	
4.5	Deadlight	A heavy hinged cover for protection against blow of the sea Note — Term 4.5 mainly used for ships' round windows (side scuttles) and term 4.6 mainly used for ships' rectangular windows	
4.6	Stormshutter		

5. TERMS FOR GLASS PANES

Cl No.	*Term*	*Definition*	*Figure*
5.1	Glass pane	A flat piece of glass cut or edge-worked to size and shape ready for glazing. In special cases the pane may be composed of two or more glass panes or be made of other transparent material (for example, acrylic sheet)	
5.2	Heated glass pane	Two or more glass panes, laminated and bonded together with an electrical heating element between them to ensure unrestricted vision in frost and snow conditions NOTE — Heated glass panes are used on ships principally for the windows of wheelhouses and bridges and also in enclosed locations used for lock-out and manoeuvring purposes	

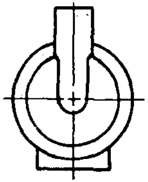
Cl No.	*Term*	*Definition*	*Figure*
5.3	Fire resistant glass pane	A glass pane, consisting of two or more glass panes and one or more intermediate layers which consist of a gas, a transparent plastic or any other transparent material	
5.4	Safety glass	Glass which, if fractured, gives fragments, which are less liable to cause severe cuts than fragments of ordinary glass NOTE — Laminated and wired glasses are referred to as types of safety glass	
5.5	Toughened safety glass	Glass which has been converted to safety glass by subjection to a process of heating and rapid cooling, so that, if fractured, it disintegrates into small pieces and, in addition, its liability to fracture under the action of external forces or changes of temperature is greatly reduced	

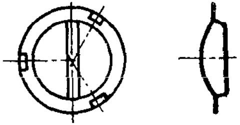
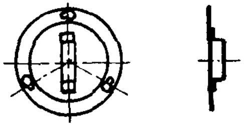
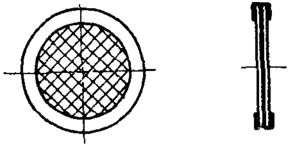
Cl No.	*Term*	*Definition*	*Figure*
5.6	Plate glass	Transparent soda-lime-silica glasses produced by floating molten glass on a bath of molten metal thus creating flat parallel and polished surfaces	
5.7	Sheet glass	Transparent soda-lime-silica glass obtained by continuous vertical drawing thus creating fine polished surfaces	
5.8	Wired glass	Soda-lime-silica glass, having metal wires (for example, spot welded square mesh) introduced and compeltely embedded during rolling, the structure of which remains largely held together if the glass fractures (cast and polished)	

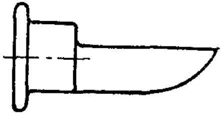
Cl No.	*Term*	*Definition*	*Remarks*	
			NOMINAL THICKNESSES OF GLASS PANE (mm)	LIGHT TRANSMISSION Percent
5.9	Clear glass	Non-tinted transparent soda-lime-silica glass NOTE — The various thicknesses of this glass have light transmissions greater than the values given in the table (*see* col 'remarks')	3	0·88
			4	0·87
			5	0·86
5.10	Tinted glass	Soda-lime-silica glass, coloured in the body of the glass, surface modified or coated, defined as a transparent glass NOTE — The various thicknesses of this glass have light transmissions less than the values given in the table (*see* col 'remarks')	6	0·85
			8	0·83
			10	0·81
			12	0·79
			15	0·76
			19	0·72
5.11	Translucent glass	Soda-lime-silica glass obtained by casting and having textured/patterned surface. It permits the transmission of light and heat but does not allow unrestricted through-vision NOTE — The various thicknesses have light transmissions greater than the values given in the table (*see* col 'remarks')	NOMINAL THICKNESSES OF GLASS PANE (mm)	LIGHT TRANSMISSION Percent
			4	0·83
			5	0·81
			6	0·80
			8	0·78
			10	0·76

Cl No.	*Term*	*Denfiition*	*Figure*
5.12	Obscured	Transparent soda-lime-silica glass which, after manufacture is surface worked by sand blasting or acid etching on one or both surfaces. Such treatment prevents clear vision through the glass	

6. TERMS FOR ACCESSORIES

Cl No.	*Term*	*Definition*	*Figure*
6.1	Clear view screen	A rapidly rotating glass disc, electric motor driven within its own frame, to ensure clear vision is maintained in any weather condition or in heavy seas Its frame is fitted to a prepared position in a larger pane of glass	
6.2	Wiper	Device consisting of seewable bars with movable thin wiper blades which pass over the outer surface of glass pane to ensure clear vision at bad weather conditions (rain, snow-fall)	

Cl No.	*Term*	*Definition*	*Figure*
6.3	Plug	A loose round cover for ships' opening round windows (side scuttles), which is set into the main frame in front of the glass pane in order to protect the same against possible mechanical damage (to be fitted inside or outside)	
6.4	Light blind	A cover to be placed in front of the glass pane from inside for darkening the window	 TYPE FOR SIDE SCUTTLE
6.5	Mosquito screen	A light frame with narrow-meshed net for protection against insects, when the window is opened	 TYPE FOR SIDE. SCUTTLE

Cl No.	*Term*	*Definition*	*Figure*
6.6	Wind scoop	An insert part for ships' round windows (side scuttles) by help of which fresh air can pass from outside to the inside when the window is opened.	

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	*Unit*	*Symbol*
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	*Unit*	*Symbol*
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	*Unit*	*Symbol*	*Definition*
Force	newton	N	1 N = 1 kg.m/s^2
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s (s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2